Note: Every effort has been made to ensure that this transcript is an accurate representation of the comments presented at the public hearing. However, due to the nature of the recording and the acoustics of the auditorium, some portions were distorted and hard to hear. Any errors in spelling or context are purely unintentional. The original recording will be retained as part of the record.

Public Hearing
Thursday, March 8, 2007
6pm
Bristlecone Convention Center
Bristlecone Room
150 Sixth Street
Ely, Nevada 89301
775.289.3720

Notice of Public Hearing
by the
State of Nevada
Division of Environmental Protection
Bureau of Air Pollution Control
White Pine Energy Associate, LLC
C/o LS Power Development
Two Tower Center, 11th Floor
East Brunswick, NJ 08816

Michael Elges: The folks that are here tonight, they will be giving part of this presentation and taking some of your questions. My staff I've got two permitting supervisors here tonight, Greg Remer and Matt DeBurle there the permit engineers that run the permitting program for the state of Nevada. They are responsible for all the different permits that we issue throughout the state, both of them have been in the program for a number of years, so I think they are pretty well suited to answer most everybody's questions, we've also got Rod Moore who's the senior permitting engineer who's responsible for this permit and this proposed project, so you basically got the folks here that have been working on this project since the application was filed with our agency here tonight. We've also got folks here from LS Power, Eric Crawford is here tonight as well as Cathy French**,** David Wilson, they're going to give a bit of an introduction and an overview of the project as well. Our plans are to have them go ahead and do that presentation first and then we got a bit more of the detailed presentation that I keep walking in front of. That will go through the air quality evaluation that we've done and draft permits that's been developed to date. Again, our purpose of our hearing, our meeting here tonight, is to make sure we take any comments that anyone has and get those on the record, that's a real important part of our process. The public comment period has been open for some time; we will get into that a little bit more in a little more detailed as we go through this presentation. This is the only public hearing that has been requested and so we've made the trek out here to do this presentation for you all tonight. As far as the meeting goes, again, we try to keep these pretty casual, I mean our objective is to try to make sure we get as much information out there as we possibly can. The key, being real important for us to make sure we get everyone's concerns, questions, and comments in particular on the record. With as many folks as we have here tonight, what I've asked that we be able to do is kind of go through our two presentations, both LS Power, as well

as the Bureau of Air Pollution Control's. We'd ask that you do not ask questions during that part of the presentation, I'd like to try to get through that material, once that's done, we will be more than happy to go back to that information and answer questions, I recognize that some of this stuff is not, it's pretty bureaucratic; it can be pretty complicated, so we'll be happy to spend adequate time going through the process, but again I'd like to trudge through that information first then we would be happy to go back and address questions you may have, again, related to the presentation that we have. Most importantly, comments, we certainly want to make sure that everybody has an opportunity to provide their comments, we don't want to try run this meeting so long that folks are discouraged from being, you know having their ability to come up, give us comments and get them on the record, to try to keep organization to our docket and our records what we've asked is that folks that are interested in providing comments, please fill out one of the comment cards that we have and present those to us and or if you've already have given those to us when you come up to provide your comments, please make sure you state your name so we can keep it in the record properly. Also want to make everybody aware that we do record these meetings, again, that's to make sure that we take all of the comments and that we make sure that we keep them in our record correctly. So again, just kind of a heads up, we just want to make sure that everybody knows that's going on before hand. With that I think we'll go ahead and get going. We'd like to have LS Power kind of kick off with giving you a brief overview of the project itself, and then like I said, we will go into the air quality evaluation and the draft permit process.

Eric Crawford: Hi, good evening, thank you for coming tonight, I'm **Eric Crawford**, director of project development for LS Power; White Pine Energy Associates is the affiliate of LS Power that will own this project and the permitting tonight. Just want to say thanks again for coming. For those of you that may be new to this process, LS Power first started working on this project in late 2003, started working in full force on it in early 2004, so we have been working on this project for some time. I'm going to make my part of this presentation here very brief, just hit some of the highlights certainly you can ask questions later, or I'll be around after the meeting if you have project specific questions that are not air related I'd be happy to answer those as well. We are proposing an environmentally responsible, coal fired electric generation facility. The power plant size would be a nominal 1600 megawatts electrical capacity. We're proposing to use efficient super critical pulverized coal technology for the boilers. The primary fuel supply would be low sulfur western coal, which comes out of the powder river basin, a lot of people refer to it as PRB Coal, comes out of Wyoming predominately. What we'll also be using advanced combustion controls**.** I'll hit on that a little more in just a minute. One of the particulars of this project since we originally proposed it since

audience: your microphone keeps going in and out.

Eric Crawford: I was talking about the cooling system, when we originally came to the county we planned on leasing the water from the county for this project; the county has 25,000 acre feet of water available for that purpose. As the project has matured we are now proposing hybrid cooling system which uses only 5,000 acre feet of water per year which is a 80% reduction from the original project proposal; and as I mentioned the water permits are held by White Pine County, White Pine County will continue to hold those water permits until they are released to our company. Just real quick, some benefits of this project, will provide low cost power to the region. It represents about a two and a half billion dollar investment in White Pine County and the state of Nevada. Should also create about 135 permanent jobs once it's completed. During construction which takes over 5 years, it will employ hundreds of construction workers, with a peak workforce of about 1200 workers. Over first ten years, which includes the five years of

construction, and five years of operations, we've estimated over 200 million dollars in taxes, will go back into the state and county. As far as infrastructure for the project, the infrastructure built includes transmission lines and those are important because they will be connecting White Pine County to South of Las Vegas and one of the synergies of that is there's a lot of renewable energy potential in northern Nevada and that transmission line will help open up **inaudible:** In fact our company is working on a wind project in the area, but I'll leave that for another time. Just real briefly here, we have a diagram, a kind of simple diagram for how a coal fired power plant works, if you look from the left to the right on the top side here, coal will be delivered by train and unloaded and stored outdoors in a large coal pile. There is a large inactive coal pile that's used for storage and then there are also some active coal piles which are smaller that are used on a day to day basis to load coal into the facility**.** There are a number of conveyors, different buildings to help process the coal, fed into the boilers, crushed into a fine powder, blown into the boilers and combusted;and then when that occurs the combustion process heats up water, creates steam, the steam is then sent down to the bottom of the base to the bottom right there to the steam term generator the steam expands through there spins the generator and produces electricity. As far as once that steam has been used it must be cooled down and that's where we use the cooling towers, again we will be using mostly dry system that does use a little bit of water during the hotter days of the year, but, that rejects the heat from that process. Particularly why were here tonight is the air permit process, once the coal is combusted into the boiler you do have hot exhaust gases, just like you have coming out of your tailpipe of your car, and uh, so there are a number of controls on the back end of this project. I guess first of all, in the boiler there's, low NOx burners to help minimize the creation of pollution. Then the boilers, is also efficient, to try to minimize the amount of pollutants that are created as well. The exhaust gases go through the selective catalytic reduction system, which is primarily used to reduce nitrogen oxides, uh then there is halogenated activated carbon injected into the stream, injected to helps to control Mercury, out of the exhaust gases. The exhaust gases are then routed through what's called a scrubber, a dry scrubber, lime is mixed in there, and that process primarily is used to reduce sulfur dioxide emissions that also pulls out some other pollutants, and all that material including the fly ash that's in the exhaust, the scrubber waste and the halogenated activated carbon are captured in the fabric filter bag house. And that material is captured and then will be disposed of at an on site permitted facility. The remaining exhaust gases are then exhausted out of the stack, and there are continuous emissions monitoring systems on the stack to make sure that we stay in compliance with our air permit That's my part of the presentation, Mike I'll turn it over to Rod here, or over to Mike.

Mike Elges: Thanks Eric, as I said a little bit earlier, we want to take the opportunity now to go through our more detailed presentation, of the work and evaluation that we conducted. Mr. Moore, unfortunately, has been wrestling with a bit of a flu bug, so his voice is kind of hit and miss, so were gonna, were gonna do our best to let him try to get through the information, if he starts breaking up too bad, we'll uh we'll try to jump in and help him out a little bit.

Rod Moore: Thanks Mike, Everybody hear me alright? This is horrible, haven't had this kind of voice since I was thirteen years old. Okay, we're going to talk about the location, the project itself, the emissions, modeling, environmental evaluation, all applicable standards that apply for this permit, the permit itself, and then we'll receive comments. Okay, location, as you can see on the map, above McGill, Steptoe Valley**,** White Pine County, 35 miles north of Ely, one mile west of highway 93, (pause) and the project itself, 3 nominal 530 megawatt super critical pulverized coal boilers. Each boiler equipped as Eric stated, with low NOx burners SCR, activated carbon injection system, dry scrubber, fabric filters. Primary fuel supply, powder river basin coal, sub-bituminous, we've got coal unloading, handling and storage systems, we've got auxiliary boiler

for start up and shut down and other miscellaneous air sources, lime systems, fuel storage, roads etc. when we get through that - PSD, federal program, stands for Prevention of Significant Deterioration that's established by the Clean Air Act. The intent is to prevent an attainment area for becoming a non attainment area. i.e.: a clean area becoming a dirty area. Pursuant to 40 CFR, PSD, a full BACT analysis, is required for any NSR (new source review) regulated pollutant, with the, potential to emit that is granted to certain set thresholds by the federal standards. White Pine Energy Associates BACT analysis evaluated controls for all three PC boilers as well as the affiliated equipment. The proposed location, hydrographic area 179 Steptoe Valley, will be triggered for PSD purposes, due to the construction of this power plant. All right, let's look at facility wide emissions, your total particulate, 639 pounds per hour, 2,700 tons per year. That pollutant is subject to BACT analysis through federal standards. Particulate matter, 10 microns in size or smaller, same goes for that. SO2, Sulfur Dioxide, Carbon Monoxide, NOx, lead, VOC's. Here we come to Mercury it is not a pollutant subject to BACT, we'll address that later. Sulfuric Acid Mist, Hydrogen Fluoride, and Hydrochloric Acid is not also. All right, PSD defines BACT as an emission limitation, including visible emission standard based on the maximum degree of reduction for each pollutant, subject to regulation under the act, which the administrator, on a case by case basis, taking into account energy, environmental, economic impacts and other costs, determines if that standard is achievable for such source through application of production processes, controls, methods, techniques, and so on. Each pollutant is subject to that BACT analysis. (Cough, excuse me!) So, the earlier slide, we had a potential to emit facility wide. We're going to look at a BACT emission limit for a PC boiler only. The units for BACT are in pounds per million BTU, as you can see they are all small. CO 0.15 pound per million BTU, the control technology best combustion controls. NOx we've got low NOx burner control, over fire air, selective catalytic reduction. PM, PM10, 0.015, fabric filter bag house. Now comes to sulfur dioxide, with a coal content by weight, less that 0.45 %, the BACT emission limit is .065 and 91% removable efficiency. SO2 with coal sulfur greater than 0.45, .09 and 95% removal, both addressed by a dry scrubber. VOC's held by combustion controls, hydrogen fluoride, dry scrubber, H2S04, sulfuric acid mist, dry scrubber and lead to the bag house. Alright, spoke earlier about Mercury, how it wasn't BACT activated; it's going to be controlled by halogenated activated carbon injection. Now there is no BACT standard for Mercury, there is however a federal standard, that's 97 times 10 to the negative 6 pounds per megawatt hour, that's based on the top coal LS Power White Pine is going to be using. The White Pine has taken a lower limit than a federal standard for Mercury, 20 times 10 to the negative 6, very low. That low emission rate for Mercury qualifies the PC boilers as a low emitting unit under Nevada's current clean air mercury program. So once a permit is reviewed, and application is reviewed, you undergo an environmental evaluation on the pollutants. Find out what it's going to do to the air around you. There are three things you consider for the evaluation, you have to meet NAAQS standards, (Nevada Ambient Air Quality Standards), you must also meet PSD increment consumption, which is federal standards, and of course, class 1 areas, national parks, what not, you got to meet air quality values there as well. And the models used are all EPA approved. So, based on the environmental evaluation preformed, these results for the NAAQS third column over, you got your NAAQS standard, microgram per cubic meter, PM10, 24 hour averaging period, 150 and so on, White Pine only result fourth column over, you got 25, real low. So then we take a step further, and take all the nearby sources, including background and compare it to NAAQS. As you can see the 5^{th} column, they are all well below the NAAQS standards, and percentage results in the last column itself. So NAAQS showed up clean, so that was a good note, good to go through with that so we proceeded further. Now we're addressing PSD increment, the facility area is modeled with EPA approved model, it's called, Aermod. The facility results for not only proposed plant, but for all facilities in that basin are overlaid cumulatively and then to determine if they are going to meet PSD increments. Once those results were run, not only including the

proposed plant, but all of the other nearby sources, PSD increment model results indicate that White Pine Energy Associates, energy station, will not contribute or cause an exceedance of any PSD increment standard, that's a good thing. And here is ah PSD results, again, third column over, you got your standard for class two area, which is most of Nevada, micrographic cubic meter, nitrogen dioxide, averaging period is annual, PSD increment standard is 25, White Pine - 1.4. As you can see they all met the standards, there's no increment consumption, another good thing. Then we look at other applicable standards, writing permits isn't just sitting down at a computer and typing, and getting a fat belly like I'm getting, it's ah, you got to review a lot of things, not only state regulations, federal regulations, and they are constantly changing, it's from one year to another it seems like. So, all applicable regulations are reviewed, if they are considered appropriate for that facility, they are written into the permit. This includes the state of Nevada, Nevada Revised Statutes, Nevada Administrative Code, and Applicable State Implementation Plan. Federal standards, you got your code of federal regulations, CFR's, which includes NSPS (new source performance standards) acid rain, PSD, which we covered earlier, and NESHAP's for hazardous air pollutants. So this gets rolled over into what we call an operating permit to construct, this allows the facility initial construction of a new plant. The OPTC will expire if construction is not commenced within 18 months of us issuing the permit. The OPTC is valid for 12 months after start up, then the OPTC must be transferred into a Title 5 operating permit with a 5 year life term. The OPTC includes all initial performance testing monitoring for all applicable pollutants, it covers all the bases. All applicable requirements for the short term OPTC are rolled over to the long term Title 5 operating permit. An acid rain permit will be included with the Title 5 operating permit, not with OPTC. And the Title 5 operating permit and acid rain permit, we will be going through this again during that time. Okay, on this OPTC for White Pine, we have continuous emission monitoring systems, CEMS for short, for CO, NOx, SO2 and Mercury, continuous monitoring emissions. Also got continuous opacity monitoring, for your particulate matter, and bag house leak detection systems, all records must be kept on site. You've got semi-annual monitoring reports, and annual compliance certification reports, a lot of paperwork, my desk is a mess; I couldn't begin to tell you. All right, conclusions: Based on the information provided by applicant and upon review by us, the proposed power plant would not result in exceedence of NAAQS, or PSD increment. The project will not result in degradation of air quality, beyond allowable standards. Cut and dry.

Michael Elges: Thanks Rod,

Rod: Thank you.

Michael Elges: What we've tried to do tonight is give you about seven eight nine, ten months worth of work consolidated in less than fifteen or twenty minutes, and certainly we don't expect anybody to be able make a heck of a lot of sense out of all that. Fundamentally, what Rod's gone over is a program that requires us to evaluate all the different air quality standards, and requirements that are out there on the state and federal level doing an air quality impact analysis in this case two things federal prevention of significant deterioration program, to make sure the proposed project is not going to cause or contribute to the exceedence of any of those standards, as well as any of the standards that are set in the state of Nevada and then to develop a permit that we go out to public notice for. Essentially that's where we're at in the process, today, the draft permit and our air quality analysis, has been out to public notice we've been asked to put this public hearing on to take comments regarding the air quality analysis and the draft permit we didn't obviously want to spend a heck of a lot of time boring you with the process but be able to at least give you an overview of what is entailed, and the numbers that go along with that. Before we start taking comments, I guess what I'd like to do is get a sense for how many folks would

like to go back into this presentation and ask questions about specific parts of the presentation, so there's a few. Why don't we go ahead and do that and then again, I just want to make sure we leave plenty of time for comments, again, if you have written comments, feel free to leave those here, you are welcome to read them into the record whatever you're comfortable with, but why don't we go ahead and take a couple of the questions, to save Rod's voice, I'm going to ask that the two permitting supervisors try to field those questions, and or if we have to we can pick on Rod a little bit more but why don't we go ahead and see if, it seems to me there were a couple of hands with folks wanting to ask a couple of questions. Did you want to go ahead? Feel, free You are more than welcome to come up and…

Joanne Garrett: I could just speak loudly

Michael Elges: that's fine as well,

Audience: Joanne, Joanne, be there in front of the microphone so we can record you.

Joanne Garrett: I don't know if this fits in to this part of your presentation, but, I don't understand the relationship between LS and White Pine Energy? Is that the name of an entity?

Michael Elges: Why don't you let Eric take a crack at that.

Joanne Garrett: Who is White Pine Energy?

Eric Crawford: LS Power is the parent company, and White Pine Energy Associates is the project company that's created to own the White Pine Energy station here in Nevada. So the permits are issued in the name of the project company, contracts for construction will be in the name of project company, power contracts will be in the name of the project company White Pine Energy Associates.

Joanne Garrett: So they're just, it's kind of on paper, they're separate entities on paper?

Eric Crawford: Separate, legal entities, but the White Pine Energy Associates is owned by LS Power.

Joanne Garrett: I see, Okay, and then in considering what's permissible, what about our other power plants that are coming up? Do we include the possible effects of the Ely Energy Center when we're permitting this project?

Matthew DeBurle: Yes, when we evaluate the application, for Ely Energy Eenter, they will have to take into account the effects of this what already, that this plant has gone through the process already. So basically, we have a permit issued for this plant any future plant has to take into consideration their effects.

Joanne Garrett: Next in line, then has to deal with what this plant puts out.

Matthew DeBurle: that is correct.

Joanne Garrett: and then, I didn't understand what was said in this presentation about mercury which is a great concern to us around here, I mean among other things, but, I couldn't tell what

the standards were for mercury, and then there was some assertion it will be taken care of, but I assume, it's not a negligible problem.

Matthew DeBurle: We do have a program, there is a federal program, new source performance standard there is a federal program for the regulation, of mercury. The state has adopted a more stringent program as part of the Nevada clean air mercury rule. I think there is a slide, basically the federal standard is roughly 100 pounds, well, 97 times ten to the minus 6 pounds, per megawatt hour. The state standard, well the standard that we've adopted for all future power plants, is basically about one fifth of that or 20 times ten to the minus 6 pounds per megawatt hour. We are, as an agency concerned with air emissions of mercury, from power plant sources as well as other sources we've been developing programs to address various sources of mercury.

Joanne Garrett: I'm sorry, I didn't really, I couldn't hear very well what you were saying, but

Michael Elges: Let me take a crack to trying to simplify what he got at. In a simple manner, federal EPA until more recently, had no mercury standard set for power plants, fundamentally that has changed, there are newer standards out there, new federal standards. What the staff is trying to articulate is that because of mercury and the issues in Nevada, we've been very pro-active in bringing regulations on that are more stringent, than many states, elsewhere.

Joanne Garrett: perhaps Nevada established more stringent?

Michael Elges: we have, without getting into a lot of detail, what's taken place here has for this project is the company has proposed some emission limitations that are orders the magnitude lower than that federal standard had set. The project would have been approved at that higher level, but there is nothing, there was no problem with where it was being proposed at the higher federal level, but again, we're pushing all of our projects to be orders of magnitude lower in having not only better controls, but very, very low emissions.

Joanne Garrett: Do we know specifically how those emissions will be reduced or controlled?

Michael Elges: Yes, I think, let's go back to that slide real quick.

Joanne Garrett: Okay,

Mike Elges: yes, this proposed project is going to be using halogenated activated carbon injection. Basically that's injected into the gas stream to pull the mercury out before it actually gets emitted.

Joanne Garrett: So it can actually be done? It's not a difficult thing.

Michael Elges: absolutely,

Joanne Garrett: That's great, that's great, because that's one of our concerns, is not to spoil our fisheries and streams.

Michael Elges: absolutely, again I certainly don't want to get off on a tangent but mercury has been one the most talked about issues for quite sometime we believe we've taken on, we've gone above and beyond what the federal government requires for mercury controls, we're doing a lot

more in our mining industry and were doing a lot here in the utility industry as well to make sure that the various types standards are met.

Joanne Garrett: I'm glad it's not really a problem then.

Michael Elges: Well, you know, I can't say it's not a problem, there's definitely challenges out there with controlling mercury, it's a relatively new pollutant in a lot of cases and there's emerging technology to deal with it. We've reviewed this technology; we think its very sound, you know, the science and design and engineering behind it looks very good, as Rod discussed in brief, a lot of this permit that were proposing to issue requires testing right out of the gate to make sure that those numbers are going to be achieved. This is one of the pollutants that will be measured continuously and again, so we're going to know right away, we're going to be able to make sure right away that there's no glitches in those numbers were giving.

Joanne Garrett: So, excuse me for going on, the process that's proposed, has been used elsewhere successfully? Or is this ground breaking?

Michael Elges: Well, this technology has been used but it's not something that has been used a whole bunch in the last, let's say, two to five or longer years. So there's not a lot of information available for a specific application. That's the trouble with being kind of on the cutting edge of requiring some really stringent standards, you're forcing the technology at the same time. Again, when you look at it from a design prespective, and engineering prospective, we believe that these numbers as proposed are very doable, again, much, much lower than, what if you will, what the standard federal requirements would require.

Joanne Garrett: One more question, I don't know if it's valid but, we know there is a lot going on right now in terms of standards because of the changes that are taking place in the environment, and you'll be issuing the permit is it kind of provisional? In case there's a change in standards during between now and the time the plant is built and operating?

Michael Elges: that's a very good question. That is very typical of the air program nationally, very common place to have standards change. I can't sit here and tell you that every new standard that comes out the source is applicable to. A lot of folks here got older projects that are still not meeting, kind of new standards, if you will. It's truly dependent upon how those new standards are written and whether their retroactive and actually require older facilities to come up to the newer standard or not. This project, because it is a brand new standard, is subject to the most stringent requirements that are out there today. That would be different than if we even permitted this a year ago, or even less

Joanne Garrett: Yep,

Michael Elges: So it's really, it's really standard specific, so that's a tough one to say, I can't tell you all of them work that way, some do, some don't.

Joanne Garrett: It would at least affect the economics of the whole project.

Michael Elges: this project, air quality definitely has a huge impact on all of these projects, yes.

Joanne Garrett: thank you very much,

Michael Elges: Thank you.

Greg Remer: can you state your name please?

Joanne Garrett: I'm **Joanne Garrett** from Baker, thanks.

Gary Perea: My name **is Gary Perea**, I'm a resident of Baker. I have a question, I'm not sure if you'll be able to answer it or not, but, if there was an identical, a second identical plant to this one within about a twenty five mile area. Would that second plant still meet the federal or state standards for the pollutants?

Michael Elges: I don't think, you kind of answered the question. We can't answer that question because we obviously haven't done an analysis that draws that conclusion or not. It's a very difficult scenario, and what I can tell you is that if there were to be a proposed project that was going to be in that kind of location, or that proximity it would have to go through this same evaluation, and consider this existing plant as well. If that project can be demonstrated to comply with all of those standards even though there is already another existing facility there then yes, we would be moving forward in proposing a draft permit for that project.

Gary Perea: could you give me an example of what are some of the factors may be, I mean, would it be wind?

Michael Elges: There's probably in arms length of them, one, well, the first and most simplistic would be, what would be the proposed emissions from the plant, that's kind of the first thing what we have to figure out. These projects can be proposed in many different configurations, they can burn different types of fuel, they just fundamentally will yield different levels of different pollutants. From there then you have a whole air quality analysis which gets into wind speed, wind direction, relative humidity, all those factors that go into that more detailed evaluation. Obviously, terrain features, the geographic features are very much an influence; I think everybody's familiar with periods of time when we have inversions where the air tends to be trapped at lower levels in peak and valley situations. State of Nevada is just riddled with those, so all of those factors; those are but a few, but those are some of the more obvious ones that kind of come to mind. All of those have to be considered before we would move forward with any kind of authorization of another project.

Gary Perea: I just have one comment; I've been involved with the LS power project on the EIS level, a little bit, and, I want to say that as a county I think, well I'm very supportive of the power project, LS has been a great company to work with, they've been real receptive and to changes with the power plant and the structure, of how they placed it. But I would say this; I am very much opposed to the second power project. I think on a county level, where there will be a lot of benefits to have L and S power build the power project in White Pine County, but I think with the second power project, a lot of those benefits will go away because of the increased size and because of the increased pollution. I think White Pine County is big enough for one power project, and one power project only, thank you.

Michael Elges: thank you.

Elaine Spilsbury: Elaine Spilsbury, White Pine County, Duck Creek basin. I have a hard time reading your charts and understanding, what came across to me is if there's clean air existing in

an area, you can pollute it, and you can't stop anything happening until the air is already dirty, that's what I read. I had one other point to make, and I did not see CO2 addressed anywhere.

Michael Elges: Both very good questions, let me, they're both tough, let's go to the first one first.

Elaine Spilsbury: Okay,

Michael Elges: and you know, I'm not going to sit here and tell you what you've taken away is completely true because there is a perspective that if you have clean air, that it can be polluted. The reality is air much like water, or any other environmental resource in Nevada has a certain amount of usability or resource capacity. The air quality in this basin, it has a given capacity that this program is required to evaluate to ensure that it isn't utilized beyond its capacity. Much like water resources, or water, there is a lot of different uses for it, there are limitations on it, there's different quality. All of those factors go into how much of a resource you really have, and how much can it be effectively be used for, the air quality works very much in the same way. So yes, to a certain degree there is air available as a resource, that quality through this process is allowed to be utilized or impacted to a certain degree, our charter is to make sure that it just doesn't get utilized on established standards that will go on to have negative impact on human health and safety as well as the environment.

Elaine Spilsbury: can I make a personal comment on that? To me this sending away our clear air is equivalent to shipping away our pure water. And then on the CO2, why wasn't that addressed?

Michael Elges: CO2, that's a real good one. I cannot tell you how many people just in the last couple of months, what are you doing about CO2? That seems to be, well that doesn't seem to be, it is every night on the news, its CO2, what's going on with CO2? Difficult thing for us is the federal government has not established CO2 as a regulated air pollutant. It's not one that we have any jurisdiction over. I can tell you that we are actively involved in certainly what's going on at the national and some of the local levels to better understand CO2, if there's going to be regulations out there, what there going to look like, what kind of impact are they going to have on Nevada? But at this point we have no jurisdiction or no basis to actually regulate CO2, and that's why you didn't see it here tonight.

Elaine Spilsbury: thank you very much.

Michael Elges: thank you. I know you raised your hand two or three times, so;

Stacy Rice: My name is **Stacy Rice,** and I'm just a concerned citizen, and I don't get any of what you said up there, so I'm just, the nuts and bolts of it, you said something about the air quality in an allowable standard, it wouldn't change, so allowable, like because, if you look at Vegas and Salt Lake and stuff, there's days they can't burn their wood stoves and when you go into Vegas you can see this big haze and you can't really see anything. Is that allowable? Is that an allowable standard? Is that what were going to turn into in a few years?

Michael Elges: Well no, and that's, (applause) a very good question. First of all, the two areas that you are alluding to do have air quality problems, they have air quality issues that have gone beyond those standards that are set. So they're actually in a situation where they're working to correct the pollution problem, if you will. That's kind of a clean up thing. This project is a basin

that were talking about, in fact the majority of Nevada, Las Vegas, there is an exception, a bit of Reno and Washoe County, there's some exceptions, those bigger metropolitan areas tend to have more aggravated air quality issues. Outside of those two areas in Nevada, the air quality is at what we call at attainment levels, they haven't gone into what is called non attainment which is where you're into that pollution correction problem stage. There again, that's why it's a little bit difficult for us, 'cause what were doing is we're basically saying that's a resource that can be utilized and we just, the program that's in place is set up to ensure that we don't allow it to degrade, to the point where it does get into that non attainment zone where we trying to correct a pollution problem. Frankly that's the challenge, of what we do every day, is to try to manage that resource with ensuring the integrity of the air quality if you will, throughout the state, and making sure that it doesn't get into a state where we have to go in and have to try and correct the pollution problem. The analysis that we've done here, the proposed project, with the controlled technology that's been proposed, the evaluations that have been put together, and again, we didn't want to try to bore you with all the nuts and bolts, but when you get right down to it, what we've concluded is the proposed project, with the technology that they're proposing, will ensure that those standards are achieved and maintained so that we don't get into that level of a problem. The numbers the way Rod was trying to articulate them was that we weren't even getting close to those levels, we were way, way, way, away, if you'd like, we could go back and look at that. But that's fundamentally the message that we are trying to portray with our evaluation shows that they were just a long ways of even getting to those places where you go "no you can't do it" because that could be the problem.

Stacy Rice: So, if you put in a second power plant and I know Gary touched on that; I couldn't follow you Gary I'm sorry, eventually, will we get to that point? I mean I think that is a concern because we've had, you know, we can see our mountains every day of the year it doesn't seem to matter we can go in them, you know, I think that's a big concern here, we don't want to lose that.

Michael Elges: again, that is the primary objective of our program is to ensure that the air quality is maintained at an acceptable level, so you don't have that situation where you are in a situation where you're having to correct an air pollution problem. We simply, by state statute, by federal regulation, we cannot approve a permit that is based on some demonstration that level of air quality, that would degrade to those levels, so, you know, that's really what this program is all about, is to ensure that, that does not happen.

Stacy Rice: Thank you.

Michael Elges: thank you, good question, very good question.

Allen DeCater: My name is **Allen DeCater** I'm from Ely. I just want to follow up on that with a direct question; do you have any idea how this is going to, let me preface it by saying one of the things that I really love about living here is that the air is really clear, you can go up on top of mountains, see for a hundred miles in every direction, on a clear day and you know the stars are incredible at night. So I'm just wondering, can you tell me what change in visibility there's going to be because of this plant?

Michael Elges: that's a very good question, and this, that's one thing we did not touch on because the visibility component of air quality is not something that we're, and I don't want to mischaracterize this, it's an important element of this evaluation, but it's not something that we have a direct handle on. It's a portion that's actually evaluated by the applicant and worked through with, which FLM was on this one?

Matthew DeBurle: National Park Service.

Michael Elges: National Park Service, dealt with that one, and without trying to, you know, get into a long dissertation, fundamentally, there's an analysis that's been a part of this evaluation that looks at the potential for degradation on visibility,

Allen DeCater: a huh,

Michael Elges: and, again without kind of going through the nuts and bolts, fundamentally, with that evaluation demonstrated is there wouldn't be any significant degradation in the air quality at the nearest class 1 area. Essentially,

Allen DeCater: what's that? What's the nearest class one area?

Michael Elges: Zion National Park,

Allen DeCater: okay,

Michael Elges: what that means is they have to take a look at the air quality and the visibility,

Allen DeCater: Great basin national park, is that what you mean?

Michael Elges: It's actually not one of the class 1 national parks,

Allen DeCater: wait, so they are evaluating what it's going to be, at Zion? That's pretty far away.

Michael Elges: Bear with me here a second, again, I'm not trying to bump their program, because that's not something we have a handle on but, fundamentally they have to look at the degradation between here and there and what would take place, that is a certain component of it. What I can say is most of the pollutants that your dealing with here from these combustion processes typically aren't, I cant say they are not related, to visibility issues, cause they are, but, in the quantities that we're talking about here, and the analysis that was done for the best available control technology, and the emission control requirements, force that back to ensuring that the standards are as low as possible. The other thing that's real important is this permit requires visible emission limitations at the stack on all of the processes here. Again, without trying to go back and try to redo the whole evaluation for everybody, part of the best available control technology analysis requires, not only an a emission limitation, or a number that they have to meet they also have to meet a visible criteria meaning, at the stack they can't have visible emissions above standards that are set. That gets right back to your visibility concerns and what's going to happen locally from the visibility perspective, those are constraints.

Allen DeCater: so**,** it sounds like you don't know really, but,

Michael Elges: I can't tell you that we did an analysis on the visibility, that's not something that we have jurisdiction on. We get visibility on …

Allen DeCater: okay, to get specific numbers I'd have to go to? The parks service? Okay. The other thing is, this mercury standard the federal standard, am I reading this right? So that's basically pounds per megawatt hours?

Michael Elges: that's correct.

Allen DeCater: and so,

Mike Elges: per megawatt hours,

Allen DeCater: and so it doesn't actually address the total emissions from any particular plant? The bigger the plant, the more the emissions are going to be even if it meets those standards? Right?

Michael Elges: that's the way the federal standard is set up.

Allen DeCater: okay, so that's

Michael Elges: the more megawatts they produce,

Allen DeCater: that's very worry some, because these are pretty big plants were talking about.

Michael Elges: it is, and again, you know, again not to understate, I think you're spot on. We are talking about a number that's pretty hard to measure because it's so darn small. That has been a problem.

Allen DeCater: But mercury is a health hazard with very low concentration, so, the other thing is, so, we are hearing a lot about coal gasification, that that process is cleaner than this super critical process that you guys are going to use. And I know that there are some applications in in other parts of the country for coal gasification plants, so I mean I asked these guys, the SPR people and they said basically they aren't going to do it because it's a little bit too risky you know so I'm wondering if that's kind of why your not going to do this either? Cause it's

Michael Elges: There's a couple of reasons, one is, there is actually no, no requirements out there that say a specific type of combustion technology has to be used there's nothing we can go to and say there's a regulation, or state statute or federal criteria that says you have to use coal gasification or for that matter, natural gas combustion or oil combustion. There is simply nothing like that out there.

Allen DeCater: right.

Michael Elges: so that's part of the reason we can't say you got to do it. I want to be cautious here because I think this is an emerging technology we've been supportive of this type of technology, I think we are very interested in seeing it come into the state, if there's applications for it. Actually, Greg Remer a number of years ago permitted the first coal gasification plant. I'm not quite sure if it was the first one in the nation, I know it was the first one in Nevada that was really an R & D plant, it was federally funded by DOD,

Allen DeCater: DOE

Michael Elges: DOE, and Sierra Pacific and we struggled quite a bit with that plant and again it was really on the cutting edge of when the technology was being evaluated and unfortunately, that plant never made it into, I can't say it didn't produce electricity on coal gas, it did, but it couldn't maintain stability. And it's currently being run as a gas plant.

Allen DeCater: but, that's kind of misleading because that was quite awhile ago,

Michael Elges: well, let me finish though, my point being, I believe the technology has come a long ways, what happened with that project is that basically it said look, this type of approach, the approach that they use worked on a bench scale great, but didn't work in a full scale production.

Allen DeCater: right, but now there's applications in for full scale plants.

Michael Elges: there are it will be really interesting to see how those work 'cause there's as many critics out there saying that those won't work too, so were definitely watching it, it will be really interesting and I'm hoping that technology will come about.

Allen DeCater: I mean**,** I assume the companies that are doing that are not willing to take a big loss on them so I assume that they think they're going to work. I guess I'm just wondering, why they

Michael Elges: we'll see, like I said, we got stung a little bit on one that didn't it was a huge enforcement and compliance nightmare for us and frankly had some negative impacts on the air quality so we're a bit cautious when we start looking at new technology.

Allen DeCater: but again, that was awhile ago, so, anyway, thanks that's all I have.

Michael Elges: thank you. Who's that? Either one, who? That is a very good question, so

Jennifer Brickey: my name is **Jennifer Brickey**, and I'm here from Ely Nevada, and the question I have is, has to do with the models, models are a way of trying to predict what is going to happen, but you can never completely or accurately predict things, you know, it's hardly tried it's never completely full proof. The question I have what these models, if you make a decision to permit this and then it turns out when this plant is up and running and it doesn't meet compliance, what will happen?

Greg Remer: Well first of all, in most modeling programs, there is a certain amount of conservancy built into the models, so the concentrations that are predicted as an output are typically worse than what you actually observe. Secondly, if there are compliance issues, in terms of measurement of emissions and compliance with the standards that are set in the permit, the source is responsible to correct those. And get them back into compliance, and that's our job to continue to oversee that and we have compliance. Mike mentioned earlier about the coal gas plant that had some compliance issues because it was not able to meet its standards or was not even able to operate in a normal fashion. So,

Jennifer Brickey: and would they have a time frame for actually meeting those standards? Or would they be allowed to continue to operate?

Greg Remer: no, they would not be allowed to continue to operate, they would be required to either shut down if they cannot meet the standards, to correct it or operate in such a way that the standards can be achieved i.e.; you could potentially, I mean I'm just hypothetically speaking here but, you could potentially say if you're twice the standard you could only operate at half the rate that you want to, that's a potential **inaudible:**

Michael Elges: those are effective upon, there's no grace period coming in to those.

Greg Remer: that's correct, once that permit is issued, and the plant is constructed the facility is required to meet those limits, basically at the point in time that they do their first performance test.

Jennifer Brickey: And is there any timeline or time frame or anything like that? Where like if they find out, if you find out they are not meeting compliance, do they get shut down that day? Or is it kind of like a prolonged process?

Greg Remer: do you want to answer the compliance issue?

Michael Elges: sure,

Greg Remer: Okay,

Michael Elges: compliance is a whole other ball game, but, fundamentally that has happened, we have shut plants down the minute we find out they are not complying. Compliance is one of those things that kind of depends on the degree of not compliance, and what's not be complied with, and again without trying to digress into a whole other kind of boring arena, if a plant's not complying with the emission limitation that are established, we will not allow a plant to continue to operate. If it's not complying with let's say a particular paperwork requirement, we will look at that and decide if that has enough bearing on forcing us to shut the plant down or not. So there's varying degrees of things that we look at before we make a decision to shut a plant down, but, definitely the emitting beyond the permit levels is one that you know, quite frankly we are very active in shutting plants down, it happens, unfortunately fairly common. It's a very common occurrence.

Jennifer Brickey: okay, one thing with jumping back to mercury, I come from a part of the county where you can't eat the fish, cause there's so much mercury, and my understanding with mercury, it bioaccumulates, so even if you have very small amounts being emitted, over time it will bioaccumulate in the eco system, and is that something that is actually being considered as well when you guys are looking into this permitting process?

Michael Elges: you're asking me the same question that I've been asked I bet no less than 50 times in the last 3 weeks, and it hasn't necessarily been related to this project, it's been more in focus with what's going on in the mining industry and mercury issues in Nevada in general. You're spot on, I believe, as far as the bio accumulation issue, it is something that we're very concerned about, primarily most of the work that's being done from a bio accumulation perspective is being done in our water programs because that's where we see mercury coming up in the fish tissues. And I think other states are doing the same thing. That being said, Nevada recognized that we've got industry that emits mercury from an air perspective as well. Talked a little bit about the push that we put here that's being implemented on lower emission levels, there's a whole bunch going on in the mining industry that's pushing some of the state of the art

technology to ensure that those emissions are decreased significantly. Right now the difficulty that we have is there's nothing there's no scientific data out there that supports that mercury through inhalation, from breathing ambient air is a bio accumulation or has a negative health impact. Now don't take that wrong, it doesn't mean we're not concerned about mercury, it's quite the opposite. My point is that we can't, we bring mercury up here tonight because we've got a program in place that is much more stringent than the federal government. We're concerned about mercury so we're taking the initiative to make that happen. Our objective, our charter, is to try to minimize mercury emissions from all the processes that we have in the state; we'll continue to do that to the degree possible. And here again these standards that we set are another I think another testament to that charter.

Jennifer Brickey: okay, and just, like, really quickly, in my understanding with mercury, as well, is it does eventually leave the atmosphere and it can get into the water system, even from the air, so even if you're not breathing it, it can eventually work it's way into the water systems.

Michael Elges: and that's my point, there's a lot that's not known about mercury but right, you know I think common consensus at this point in time is it is a bioaccumulation and an uptake through fish intake. Mercury emitted and the science behind it is not well known folks are talking a lot about the global pool of mercury, the mercury that's coming from combustion sources in China, and I'm not sure that, well I know that we have not able to really pin down what level of science is out there and what it really means yet we're supporting a lot of research to try to get some of those answers. And in the mean time of not having those answers our focus is let's minimize mercury emissions to the degree possible. That, we don't want to wait for the science to catch up and tell us what the answer is, we know it's bad to be emitted, we don't want it accumulating in the environment, but were going to do everything that we can, at least within our legal authority to minimize it at the source. Then again, that's why we've got such a stringent standard here set up.

Jennifer Brickey: alright, well thank you.

Michael Elges: That's a very good question, very good question. There's somebody else over here, yes, we'll go to your next, then you? Okay

Neil Frakes: I just have a couple of questions one, people have talked about how clean the air is here. Several people have mentioned that but, it's not always clean here, we do have a lot of wild fires around here, so there could be weeks on end in the summer where our air quality is not very good, and have you considered that in your analysis?

Greg Remer: wild fires are not a, well they could be man caused, but they're not a factor that's in control of the company that we have an application before us. As such, it's difficult to factor those in because they're unknown, their length, their duration, is variable what they burn, where they burn, is variable It's almost impossible to try to take that into account in advance of anything. And they are transient, power plant however is permanent, it's fixed, we know where it is we know how to assess what it emits and we know how to analyze for its impacts. That's not to say that wild fires, forest fires are not important, there's a whole other program that is focusing it's called the regional haze program which studies those effects and it is incumbent upon states to ensure that visibility in it's pristine class 1 areas in areas, those are areas like Zion and Jarbidge, that they improve their air quality if they don't have good air quality in terms of the visibility. And they are studied from a perspective that includes all of the emission sources to the best extent that could be outlined, or it could be anticipated. And wild fires are a factor in

that. But from the stationary source perspective, it's almost impossible to try to delineate from an air quality analysis for this particular source to determine whether or not a wild fire has a potential impact on it. Obviously, a wild fire will have a very significant impact; it just depends upon its location, and what the particular wind direction is during that particular event. Does that answer the question?

Michael Elges: I think the other thing that's important to note too is, as Greg said, that's something that's really hard to figure when you're trying to do this analysis because they are hit and miss. But we do know that they happen, and it's, there is, there are some provisions in our regulations that allow us to require industries to shut down either partially or fully if there's a health, I'm sorry, if there's an air quality problem in a particular area, and that's a very, I think, its a very powerful tool, and I think your scenario that you described is a valid situation where that might occur. If you have a wild fire or an event that is causing some significant degradation to the air quality in a basin where, what we obviously don't want to do is continue to aggravate that by the industrial sources being cranked up. There are provisions in place that our larger facilities actually have to have a plan on how they're going to ramp down at our direction, and we can go so far as to require these facilities to shut off, so that were not, you know, basically making a bad situation worse. So the program does try to kind of get at it but it's not through this strict analysis when you're developing a permit for that specific source.

Neil Frakes: okay, I just have one other question. This project involves some water use, and I know we are here to talk about air quality but I think there's maybe an indirect link, there's also a couple other major water projects that are proposed for this area, for this county, and I'm a little concerned with the draw down of using ground water, this might have an effect on vegetation, a loss of vegetative cover which might increase the amount of dust that gets inputted into the air shed, and I'm concerned that might be another factor that might add to, I mean, are you considering that in this analysis?

Michael Elges: not directly, and you are absolutely right I can't speak about water, water resources, and those potential impacts, that's definitely not our forte. What I can say though, as far as dust control, fundamental dust control concerns, that is an issue throughout Nevada. There's are a lot of places that frankly don't have anywhere; again, I'm not saying there's a ton of water here, but that certainly don't have the water resources that this area has, but we have large industrial sources, we have processes, we have lots of construction going on everywhere throughout the state, this is just one of the main issues that we address. The proposed project, has been evaluated, and does have basic dust control requirements that fundamentally say you have to implement a program that ensures that dust control, and dust control measures are in place and constantly being overhauled and upgraded to ensure that there is no cause of fugitive dust to begin with. That's to make sure if there is, you know the easiest one, you kind of nailed it, was folks bring a water truck in and water's dumped down and you know that pretty much takes care of the dust. When that's not available, these projects have to have a plan in place, what are they going to do continuously to ensure that the dust is controlled. Be it, you know apply different types of palliatives, or surfactants, sometimes we make them duct things to other types of controls or enclose them because of that very issue, all of those have been evaluated and are part of the permit section 10 I think if you really want to get carried away. But indirectly, we get at the fugitive dust, but that is, it's definitely our issue. But we don't' really have anything to do with the water aspect of that other than we say you have to have a plan in place, it has to pass our muster, and it has to be real, it has to be implemented and we enforce that to the nines.

Neil Frakes: so, if there was like a kind of large scale loss of vegetation due to the water draw down, that would be addressed by this fugitive dust plan?

Michael Elges: that's correct, they would have to do some kind, they would have to have a plan and a mechanism in place to mitigate the potential for dust to even be emitted. So like you said if you lost all of the vegetation something would have to be done to stabilize the area to ensure that that wouldn't occur.

Greg Remer: could I get you to state your name?

Neil Frakes: oh sorry, my name is **Neil Frakes**, and I live here in Ely.

Tara Forbis: my name is **Tara Forbis**, and I live in Ely, you mentioned before that the basin and range topography in Nevada tends to create inversions, and to me a likely scenario for this power plant and particularly if there were two here is that given the fact that our winds are usually from the west and there's a very high mountain range to the east of where these proposed plants are going, that we are going to be experiencing frequent inversions that are going to give us pretty poor visibility and I've lived in places, in Bolder Colorado where you know, you go hiking in the mountains, and you can't see down to where you live because it's a black layer over the town. You also mentioned that you use this EPA approved model, and I was wondering if that model takes into account the topography and the prevailing winds, and if you could tell us how many days per year we might expect to experience this type of visibility problem due to an inversion, because of our geology here.

Greg Remer: well, the answer to the question simply is yes, the model takes into account the topographic terrain features. It also takes into account the met information; one of the key elements of input into the model is real meteorological data. The companies are required to collect that data before we move forward with proposing the permit and that data is based upon information that's collected at or really near the site. So in essence although we don't have any information in terms of how many inversion days there are cause those are measured visibly not through a met station there are certain met conditions that kind of occur that would allow you to kind of figure that out maybe, but, the answer to the question is the meteorological conditions are actually input to the model and the model takes that into account, if they do exist during that monitor period.

Tara Forbis: but the actual effect on the visibility isn't something that's regulated so if it became really bad for example that wouldn't be a reason why the plant would have to shut down.

Greg Remer: as Mike said, there are a couple facets you have to kind of understand here. Although visibility isn't specifically regulated in the region, of the plant, it is regulated at other more distant, at, all be it, from this particular spot that they are regulated for visibility impacts at class 1 areas. They're also regulated for visible emissions from the stack as Mike said, at its source basically. And they are also required to show compliance with all of the other ambient air quality standards through the modeling assessment that is done using the onsite meteorological data. All of those factors, when you roll them all up, indicate that the plant should be able to show compliance if it meets its emission limitations, and you should not have a problem.

Tara Forbis: that doesn't mean that we won't experience poor visibility due to inversions because that's not specifically regulated at this site.

Greg Remer: it's not specifically regulated at the site, but it's also maybe not even particularly related to the facility itself. It could be due to visibility conditions that exist from other sources, such as wood stoves, or **inaudible:**

Tara Forbis: having lived here a few years, we don't really have that condition now; we have clean air and we enjoy it.

Michael Elges: and your points well taken, again not to try and get cyclic here, but I mean, you're right, we don't evaluate the visibility and I can't tell you how many inversions are predicted down the road. I think what Greg's trying to articulate is that the evaluation that was done took real live data from the area, and during those inversions that occurred during the period of time when the data was collected, the evaluation was conducted including those. What it demonstrated to us was that during those events it certainly isn't going to cause or contribute to an exceedence of the ambient standards that are out there, that's different than what your issue is which is what's it going to do to visibility and what's it going to do, you know, in one of these inversion events. And your spot on, that part we just simply don't have any jurisdiction over so we can't really address that, and what Greg's trying to say is, in one of those conditions, the analysis shows that the plant could be operating and it wouldn't significantly degrade the air quality to an unhealthful point, two different issues, as you clearly articulated, so, yes, that's a tough one for us.

Tara Forbis: I have a second question, so, you talked about what percent of various pollutants would be removed from the emissions by the technology that's being used and so one of the results of that is that several times what's being emitted is actually what's going to be kept on site, and is there, do you regulate you know, how much basically toxic stuff can be left here, or is there another agency that regulates that?

Michael Elges: very good question, yes, and that's, you are absolutely right, whenever you have a process where you are actually scrubbing toxics if you will, or other pollutants out you're going to accumulate them and have to do something with them. That is not something that we regulate that is something the division of environmental protection does, we've got a couple different bureaus that deal with that more predominantly, our bureau of waste management. I can't tell you much more other than that, that bureau's there I've never worked in it, I don't even really know what they do to be perfectly honest with you. But that is something that this evaluation that we do does not take into account. It gets out of the air quality arena around that we are responsible for.

Greg Remer: let me say one thing, just a point to be clear there are certain facets of the pollution recovery system that we do regulate, such as the fabric filter for instance, the bag house. When it collects all of its particles they drop down into a hopper in the bottom of the bag house. That collection system and the handling of all of that to the point in which it's transported off site or deposited in some sort of a land fill off site; that is controlled by us, and the company is mandated to have pollution control equipment to control those emissions as well. They are required to handle and transport their materials in such a way that they are not allowed to become airborne and they are controlled within standards. So once it is controlled there are certain aspects of it that we do handle so that it doesn't become re-transported into the air, but things such as water, discharge water, that's a different process than the air quality concerns, it's a water quality concern and as Mike said, we do have other bureaus within our division that will deal with those elements.

Michael Elges: and actually I think that Eric could probably talk with us a little bit better than we can, he's had to work with this stuff mostly

Eric Crawford: yeah, just to be clear, we do have a permit application pending within NDEP, the solid waste division for the onsite landfills. They have not gotten to the stage of their processing that application but their waiting to put it out for a draft permit decision then it goes through a much similar process like this, there's technical reviews, there's control technology's to minimize any of leaking into the ground, there's liners and different systems and there will be a public comment period for that permit as well, there will be noticed locally, if there's a request for a public hearing like that on that process that can occur

Tara Forbis: can I ask, how, for what period is the company responsible for the material that's deposited in the landfill here, so for example, if the plant stops operating, for what period are you still responsible for that material?

Kathy French: the company is responsible for it forever, the company once it starts construction of that landfill it will have to post a bond or trust fund, have money set aside, that NDEP can monitor and make sure it continues to be set aside and that money is protected in case the company were to go under or were to leave town. That money is there to clean that up and so that the state can in effect make sure that that landfill doesn't pollute or leach into the ground so we are responsible for that forever.

Tara Forbis: thanks.

Michael Elges: I've promised this poor gentlemen too many times. I know he's kind of hidden behind the speaker half the time so, can't tell.

Rod Conner: my name is **Rod Conner**, I live in Duck Creek, has anybody or has this study addressed steam, we talk about particulates, and pollutions coming out of the stack. The location of the proposed site, I understand is about a mile, mile in a half west of highway 93. Highway 93 is a main life line into our community all of our food, clothing, are children run there on their buses, I can see in winter time we're probably one of the colder places in the nation many times of the year. Ice forming on the highway, visibility to maybe to restrict traffic, has anybody addressed this issue?

Mike Elges: Do you want to talk about that Eric?

Eric Crawford: There is a Federal EIS that's being completed by the Bureau of Land Management for that process that soon will be coming up for public review and comment as well, but just real quickly here, addressing the direct point of your question. During the winter time, and much like you see steam, condensation coming out of your mouth when you're talking, out of the stack in the winter time you would see a steam plume. The stacks that are being proposed are 600 feet tall, so that's a very high level, and that usually dissipates you know, relatively quickly on very cold days, it doubles up, you know several hundred feet tall there's hot air, and hot air rises, and so that rises away from the roadways as far as ice, a lot of power plants, most power plants if you've been to the east or wherever use wet cooling systems, cooling towers that are much lower to the ground maybe 40 feet above the ground. And those put out huge steam plumes. This plant is using a dry system so there will be no steam plume from that during the winter. So you won't have that concern. Does that help answer your question?

Rod Conner yes, but ah, once again, the predominant winds are from the south west, it will be blowing and going across highway 93 that's a fact.

Eric Crawford: sure, these stacks are 600 feet in the air and that steam plume will never, I don't think you'd ever see it coming toward the ground cause there's always huge amounts of hot air

Rod Conner: I understand heat rises, thank you.

Michael Elges: come on up.

Michael Dalton: I'm **Michael Dalton** with, from a resident of Ely. I think were missing a point here, you give us a chart where it's just here, but you haven't addressed transportation.

Mike Elges: As far as pollutant transportation?

Michael Dalton: correct.

Michael Elges: actually, I think we have, but.

Greg Remer: let's see; let me make sure that I get your question. You want to know how far the plumes will be transported.

Michael Dalton: plumes can travel thousands of miles, this could come from Las Angeles that could affect our area. And I know modeling takes what maybe fifty, maybe fifty miles from the source or a hundred miles.

Greg Remer: the modeling that was done for the ambient air quality standards studies take into account the affects within fifty - fifty kilometers from the source which is about thirty miles or so.

Michael Dalton: yes, so this does not include metro cities like Las Angeles, Phoenix, LasVegas?

Greg Remer: where the emission sources are coming from?

Michael Dalton: correct.

Greg Remer: that particular modeling would not, the visibility impact analysis and the impact data that was done for the analysis on the class 1 areas, however, do take into account vary long range transport circumstances. The long range transport into a region from another source such as a major metropolitan area like Las Vegas or even LA or Sacramento, those are not taken into account they're, they're deemed to be [**Mike Elges:** (aside) background monitoring] that is true; they're deemed primarily to be too far away to have a severe impact on the area.

Michael Dalton: I'd like to disagree with that statement. If we look at '03 and we look at eight hour from great basins monitoring site there is no NOx, huge NOx sites in White Pine County. But yet their almost near exceedence. Their pushing eighty, seventy-nine, seventy-six.

Greg Remer: for an eight hour standard, you mean?

Michael Dalton: for an eight hour standard.

Greg Remer: there's a number of studies that I can think of that have tried to analyze where that's coming from, and again its not a piece of the evaluation that's done for the source's impact on the environment, that's a separate issue of how the (interrupted)

Michael Dalton: I would think the permit is to protect human health, not economics.

Michael Elges: again, I'm not trying to be argumentative with you, I think what staff is trying to explain to you is that this is not part of this analysis, the ambient monitoring that your referring to there is studies and science; we're going on to try and evaluate where that's coming from and what the contributions are. This project evaluated what the emissions would be from this project and how they would impact the environment outside of that. That's what this program has jurisdiction over; I think it is important to understand that we do require that these sources do pre construction ambient monitoring to determine what the quality of the ambient air is in the vicinity of the project.

Michael Dalton: but according to your power point 03 is not required to be monitored here.

Michael Elges: it is not because the project wasn't constructed. The analysis that we've conducted is right before the project, we would be remiss in taking 2003 data and trying to use it today to justify a plant for the upcoming year. What I'm trying to say is that information was certainly used, and if there were impacts that were elevated they were factored in as part of that analysis.

Michael Dalton: isn't EPA considering changing the 03 levels, reducing the 03 levels, down to 60 parts per billion, or million?

Michael Elges: for ozone?

Michael Dalton: ozone, 8 hour, ground level.

Michael Elges: I'm not aware of anything like that; I know that the ozone standard has changed a year in a half ago?

Michael Dalton: I think that was 1hour to 8 eight hour.

Greg Remer: and the standard was lowered, it went from 12 PPB down to 8 eight PPB I'm sorry, 80 eighty PPB from a 100 hundred.

Michael Dalton: that was a one hundred twenty hours

Greg Remer: one hundred–twenty down to eighty, yes. and the length or the averaging period for the standard changed from 1 hour to eight hour in that process. That actually was published in I want to say '97, '98 somewhere around there. There were a number of factors that influenced its immediate implementation but the standard became effective a couple years ago, basically.

Michael Dalton: well the concern with that is if that happens then White Pine County would become non attainment.

Greg Remer: well, a number of areas may become non attainment, not just - (multiple people talking)

Michael Elges: again, you know, we had a question a little earlier about what happens if you got new standards that up and come, we have to deal with those on an ongoing basis, so we can't permit or make a decision on what might happen tomorrow.

Michael Dalton: but as uh, as employers or somebody looking for investment gain in White Pine County, they have to take these in consider. So because non-employment

Michael Elges: we can't take issue with that.

Michael Dalton: we wouldn't become PSD, we would become NSR permits.

Greg Remer: that's correct.

Michael Elges: that's correct.

Greg Remer: if it goes non attainment that would be a different issue, but it wouldn't be because necessarily a specific source caused it. It's because the standard changed.

Michael Dalton: No, it wouldn't be a specific source caused it, it would be that they helped contribute to it.

Michael Elges: listen, I think your comment, you know I understand your comment, I think there is validity to it, what I'm telling you is that we did not evaluate that in this evaluation because there's not anything that governs that at this point. I'm not sure what else I can tell you other than that. There's not a different ozone standard, the standards that are out there were evaluated and the project as proposed demonstrates compliance.

Michael Dalton: alright. And why wasn't PM fine included in this permit?

Michael Elges: there's currently not a standard, a permitting standard in place for PM fine.

Michael Dalton: and ah mercury, I understand Nevada is fourth largest emitter in the world, for mercury. This is cited from Reno-Gazette. I understand all these people are kind of under it, but the fact is they are contributing to it also.

Michael Elges: again, I don't know what else I can say about mercury other than we required the best controls that are available for this project.

Michael Dalton: thank you.

Michael Elges: thank you. I want to make sure we get some time in here to actually get official comments, we are obviously taking these as comments but, so I'd like to try to wrap up with Q & A if we can, as quickly as possible.

Merle Rawlings: may I turn this? I need to talk to some people and you. I, excuse me **inaudible:**

Michael Elges: do you have specific questions of us sir?

Merle Rawlings: I do have. I have comments and a question.

Michael Elges: I'd like you to ask us about them.

Merle Rawlings: alright. And leave the microphones and so on as it is, alright.

Greg Remer: could you state your name please.

Merle Rawlings: you will have to pardon my back. My name is **Merle Rawlings** I represent the, my affiliation is the State Valley Utah Downwinders and every morning when I rise, as I walk outside onto my front porch "is this on?"

Michael Elges: yes it is.

Merle Rawlings: every morning as I rise and walk out onto my front porch and I look directly into Nevada although I am technically on the Utah side of the border. When I drive to Delta Utah where a large power plant is now in operation I have opportunity to look out at that delta valley, which used to be totally pristine, completely clean air. And I look out now as I'm driving down the highway and I see a greenish, grayish, brownish, yellowish haze, hanging not over the city but completely over the valley extending probably twenty to thirty forty miles on either side of the city. That didn't used to be there until the generating plant started. I'm more than a little bit concerned, could you put up the tons of emissions, that chart that will be screening so much of that stuff out.

Matthew DeBurle: (slide) number eleven?

Merle Rawlings: no, I want to see how many thousand tons are being, thank you. For the folks in the valley here and also for us in Utah how much for example, how much of three quarters of a ton per year of lead is acceptable in your air that you breathe. For mercury we've heard, we don't really have any standards and so on although, all of us have probably heard at times physicians being interviewed on television saying "do not eat tuna" more than twice a week, because it contains too much mercury. It's hazardous to your health. But were saying well, fifteen hundredths or so is an okay thing I really question that. sulfuric acid mist, hydrogenflouride HF, no one in this audience probably knows what that stuff does, and nothing's been explained. How does hydrochloric acid work on the human body or oxides of nitrogen and so on? We haven't, that's probably outside our purview for tonight, but I just got thinking of for us on the Utah side of the border and we are approximately sixty-five to seventy miles as the crow flies or as the air flows, directly east of your located, or of the proposed location for your power plant. So when our friend here tells us that were going to have a smoke stack that's six hundred feet in the air, that will disperse all of these real heavy duty pollutants, I know where their going to go because I know where the air flow is, it doesn't go out towards the pacific ocean, doesn't go toward California, and western Nevada, it goes towards western Utah. So we'll be the net recipients of a great deal of the pollution that is still left in the air even though it's scrubbed, even though it's filtered, even though it's had a lot of treatment. We are not going to get all of the stuff, all of the poisons, out of the air. As a matter of fact, by law we allow a certain percentage, a certain amount, of pollutants into the air that we breathe, by design. And we on the Utah side of the border and the people I represent in the Downwinders Association is saying, not a single ounce is appropriate for our children, for our grandchildren, for our mothers that are

carrying babies, not an ounce of this garbage in our atmosphere is what we'd like to see, not a bit.

audience: applause

Merle Rawlings: and right now.

Michael Elges: do you have a specific question you have us sir? Again, I'd really like to get on to the comments.

Merle Rawlings: getting a little close to home.

Michael Elges: I'm just curious if you have a question.

Merle Rawlings: see, we've had the same thing essentially in Delta, we had EPA approved air dispersion model, and the valley is polluted. At Delta Power Plant all applicable standards are being met. And the air is polluted. You can see what you breathe. I cannot see what I breathe in my valley. And neither can we here and it ought to stay that way. Next, semi-annual monitoring reports are made as required by the Delta Plant; the air is being polluted even as I speak. This presentation is essentially the same as the ones we heard in Delta. Don't worry about a thing, after all, mercury hasn't been shown to be really a tough situation for little children or babies, and yet it has. That stuff is deadly to young children and to babies. I would say that in many respects what we're hearing here is what we've heard in Delta. What we will see as a result of this power plant, if it's permitted, if construction begins and operation begins you will see the same yellowish, brownish, grayish, greenish haze hanging over this valley and mine. It's totally unnecessary, this plant should never be permitted or construction permits granted at all in our opinion. And so for our friends in White Pine County we wish them well, and also for our folks in western Utah who will be the recipients of a 600 six-hundred foot stack of the garbage you want to put further east we don't want anything to do with it, stop it now.

audience: applause.

Michael Elges: obviously we are taking those as comments. I just want to make sure we give everybody an opportunity before it gets too late for comments.

Rick Spilsbury: this is a comment. And first off I'd like to say, that the people I've met from LS Power, oh, my name is **Rick Spilsbury** and I'm representing the friends of Shell Creek Ranch. And the people that I've met from LS Power seem to like really descent people, and trying to do a very difficult job, and having said that, I'd like to mention also, that it's really nice that you are not going to break the law. I mean that's great you're not going to break the law, but what we are talking about here is not breaking the law, we're talking about doing what's best for us. This is we know that there are technologies out there that create no air pollution whatsoever. We know there are technologies out there that use no water whatsoever, and um, well this is the first time I've ever seen these statistics, I've used some estimates from others, but basically, what were looking at here on some of these here, let's start with sulfuric acid, one of the primary components of acid rain, acid rain has been shown to have adverse impacts on forests, fresh waters and soils. In some cases whole areas of forests have died from acid rain. Acid rain kills off insects and aquatic life forms, including fish. Acid rain depletes minerals from the soil. Acid rain causes damage to buildings and although the coal industry has been able to cast doubt on the obvious fact that rain has been shown, I mean that acid rain has been shown to cause illness and

premature deaths in humans, LS Power intends to release approximately fifteen-thousand tons of sulfuric acid into our air. Now were talking about how many tons per year. But this is going to be running for fifty years. Multiply every one of those numbers by fifty to get the actual number of how much were going to actually have to deal with. Particulates, these are those chemicals associated with acid rain that cause illness and premature deaths. LS Power intends to release approximately a hundred-thousand tons of particulate matter into the air. Mercury, many of the oceans' fish are laced with unsafe levels of mercury. We all know where the mercury is coming from; just one drop of mercury in a lake can make all of the fish there unsafe to eat. Salt Lake City, I mean Salt Lake itself, is one, has one of the highest levels of mercury in the world and the mercury coming out of this plant is going to be heading right straight towards Salt Lake. Infinitesimal amounts of mercury can cause learning, language, and motor skills damage. Mercury can also permanently damage the nervous, cordial vascular, immune and reproductive systems. LS Power intends to release seven and a half tons of mercury into our air. Lead, lead is a known poison; lead has been known to cause mental retardation, schizophrenia, reproductive problems, physical illness, and death. Consumption of lead is dangerous in the milligrams, LS Power intends to release a hundred tons of lead into our air. Arsenic, arsenic is a notorious poison, and I guess I don't see it up there. Arsenic is a notorious poison that leads to the death from multi system organ failure; arsenic is a category one poison. The world health organization considers water unsafe at anything over 10 ten parts per billion. LS Power intends to release ninety-five tons of arsenic into our air. I don't see benzene, but I'm sure that's an estimate from a chemical that these guys will also be releasing, I know that you guys in the EPA don't have to, or aren't required to regulate these particular chemicals but some of them are pretty dangerous, and they should be regulated. Benzene, breathing benzene can cause drowsiness, dizziness and rapid heart rate, headaches, tremors, confusion and unconsciousness. Eating or drinking foods containing high levels of benzene can cause vomiting, irritation to the stomach, dizziness, sleepiness, convulsions, rapid heart rate, and death. Benzene is a human carcinogen. The EPA has set a maximum level of benzene in drinking water at 5 five micrograms per liter. LS Power intends to release approximately three-hundred tons of benzene into the air. Benzyl chloride, this dangerous gas has been used as a weapon of war. LS Power, intends to release over a hundred-fifty tons of Benzyl chloride into the air. Hydrogen fluoride, is toxic even in small amounts, when ingested or absorbed through the skin. Exposure to hydrogen fluoride can lead to extreme throbbing pain, metabolic changes and even death. LS Power intends to release over two-thousand tons of hydrogen fluoride into the air. Acetyl aldehyde, acetyl aldehyde is, (phone rings) not now, (laughs) acetyl aldehyde is toxic, an irritant, and a possible carcinogen LS Power intends to release over a hundred-thirty tons of acetyl aldehyde into the air. Methyl-chloride, chronic exposure to Methyl-chloride has been linked to birth defects in mice. In humans, exposure to Methyl-chloride during pregnancy may cause the fetus' lower spinal column pelvis and legs to form incorrectly. LS Power, intends to release a hundred-twenty-five tons of Methyl-chloride into our air. Acralene, acralene is such a severe pulmonary irritant that it has been used as a weapon during world war one. Acralene is a suspected human carcinogen, acralene concentrations of two parts per million are immediately dangerous to life. LS Power intends to release seventy tons of acralene into our air. Carbon Dioxide, oh I forgot one, Carbon Monoxide, thirty-five parts per million can cause headaches and dizziness within eight hours. Four-hundred parts per million can be fatal. LS Power intends to release three-hundred-eighty tons of carbon monoxide into our air. Over the period of fifty years that they plan to run this LS Power intends to burn three-hundred-fifty million tons of coal. That's literally a mountain of coal; none of the byproducts, chemical byproducts from burning this mountain of coal would just disappear. That which does not end up discarded in approximately fifteen-hundred acre toxic sludge land fill is still far more than our community environment can handle. Although carbon dioxide is not toxic, it is very dangerous to the balance of our environment. The massive amounts of carbon dioxide

that humanity has been pumping into our atmosphere is resulting in the intensity and duration of hurricanes doubling since the 1970's. four-hundred-thousand square miles of artic sea ice has melted in the last 30 thirty years. There isn't a glacier on the planet that isn't significantly smaller than it was a hundred years ago. And the melt water from some of these glaciers feeds rivers that millions depend upon. The national center for atmospheric research has found that the density of our outer atmosphere is predicted to reduce by three percent by 2017 due to carbon dioxide emissions. The center for health and global environment has reported that mosquito born diseases such as malaria has spread to once cooler climates. The national center for atmospheric research has found that the percentage of the earths land area stricken by serious drought more than doubled from the 1970's to the early 2000's. El Niño has caused a drought for over two years in the Amazon rain forest. Rivers have dried up and wild fires have burned large areas. If this continues this year, an unstoppable cycle of deforestation may begin. In 2002 and in 2006 the western united states experienced some of the worst wild fires in the last 50 fifty years. The national academy of sciences published data that show that western wild fires have been linked to north Atlantic temperatures. Nature magazine is published evidence that this is happening on other locations on the planet also. The national oceanography center found that a thirty percent reduction in the currents that carry the gulf screen, stream, I can say it, which raises fears that western Europe might plunge into a mini ice age. Researchers from Scripps Institution of oceanography have found clear evidence that the top half mile of the ocean has warmed dramatically in the past 40 forty years. Nature magazine has published an article that points out the oceans phytoplankton are in decline. And that the productivity, the global oceans might as tightly linked to climate change. Phytoplankton also absorb carbon dioxide, the national academy of sciences published a report that global warming was responsible for killing off 90% ninety percent of the coral in part of the Indian Ocean. The world conservation union warns that twenty percent of the earths coral reefs have already effectively been destroyed and half of the worlds coral reefs may die within the next 4 four years. The Pacific Marine and environmental laboratory's found that the world's oceans are thirty percent more acidic from more carbonic acid, due to the build up of carbon dioxide in the atmosphere. This acid is accumulating one-hundred times faster than at any time in a million years. At this rate within the next fifty to a hundred years, sea water will dissolve seashells. Divers from the university of California, Santa Barbara, have already observed methane blow-outs on the sea floor they warned that if global warming continues, we may reach a tipping point where in frozen hydrocarbons will release tremendous amounts of green house gasses that could accelerate global warming out of control. The institute of arctic biology has found that frozen bubbles in the Siberian lakes are releasing methane at rates 5 five times higher than previously estimated. As permafrost continues to thaw tens of thousands of Teragrams of methane could be released into the atmosphere accelerating global warming. The association of British Insurers has estimated that global warming will lead to twenty-seven billion dollars worth of storm damage annually by 2080. Nature magazine and National Geographic have published articles that predict that by 2050 a million species, a million species, may go extinct due to human emitted green house gases. An internal pentagon report has reported, an internal pentagon report has warned that global climate change will soon lead to drought, famine, and wide spread warfare as countries begin to fight over scarce food, water and energy resources. The report argues that climate change should be elevated beyond a scientific debate to a U.S. national security issue; this should be a U.S. national security issue. We have a situation here where we could do the right thing, LS Power intends to emit five-hundred million tons of carbon dioxide into our air. Now I realize that the EPA cannot control a number of these chemicals and I realize that we do need power. But we don't have to develop power this way, there are better ways to do it, and there are ways to do it that are profitable, and that's what I have to say.

audience: applause.

Michael Elges: I think, I'm sorry, I'm losing my voice. Again, I'd like to ask is there anyone interested in asking or addressing comments based on the information that we presented tonight having questions of our evaluation?

Matt Griffith: My name is **Matt Griffith**, I'm from Ely. You mentioned that you didn't want to bore us with the nuts and bolts of what was detailed in this; so my question is where I can find the nuts and bolts.

Michael Elges: Good question. We are certainly, we have the full technical support document, I think that was made available during public comment. We will have it, or do have it on our web site right now, there was one thing I was going to close with,

Matt Griffith : what's the web site?

Michael Elges: well, let me close with that tonight so everyone can get that information. As long as you signed in we'll also make sure that we personally send you that information we wanted to make sure that was available, again, for everybody, thank you.

audience: There is a copy of the application at the local library.

Michael Elges: Ah, it's still at the local library?

audience: okay.

Michael Elges: yes ma'am.

Sylvia Baker: I have sort of a question**,** but it will probably end up being a comment.

Michael Elges: that's fine.

Sylvia Baker: my name is **Sylvia Baker**, and I live in Ely Nevada, and my progeny live in Baker Nevada. I was wondering, you talk about ambient air quality and pollution at the time that the plant is running as compared to now, or just real figures? And are you considering that we will have six and a half years of major community construction of all kinds in order to accommodate twelve-hundred construction workers for the five years that they're building the plant. And we'll have to have schools we'll have to have additional medical services we'll have to have additional homes and roads and developments, housing developments or at least mobile home parks which will require all kinds of construction and so if you are going to have all that infrastructure built at the same time you're trying to build a plant or before, then you're going to have somewhere for those construction workers. And they will have to have competitive wages or they'll just work for the plant and you know we'll be just a real tent city that is a mess. And then what are we going to do when we've over built, five years later and we only need a hundred and thirty four homes for the permanent workers and we don't need as many, you know, as much hospital space and many clinical services and how are we going to get the people, the professionals, the educated people that provide services like medical care? We have a very difficult time recruiting doctors I'm a clinical social worker and I'm a psychologist out at the prison, the prison staff, the medical staff we have no doctor now, we can't recruit any, we are fifty percent down in nurses. We can't recruit any; there haven't even been applications for those

jobs. I don't know what the figure is on custody workers but there you know custody staff is gonna go get a construction job and were gonna have a maximum security prison out there that's in even worse shape than it is now and it's in very bad shape. It also causes pollution and I'm just wondering if you're taking into account that the baseline for a whole lot of air pollution will be very different from what it is today and we will already have lost our visibility and we will already, especially during times of forest fires, but also inversions, inversions isn't just about visibility it's about trapped pollution. I went to school in Salt Lake City, and one of the years I was there we had up to twenty four days solid of inversions, well do they shut down all of the industrial things? No, they tell you to car pool and take public transportation and don't go outdoors.

audience: applause.

Sylvia Baker: and certainly you don't see the stars unless you go up into the mountains, and when you're a student you can't afford to go up in the mountains all the time. But, but I have a real concern about what it will do the air pollution will be the consequence of a huge amount of socio-economic upheaval in this community. And it will become a community where most of us here won't want to live any more. And so we'll move away and leave it up to whoever is left, the one-hundred-thirty-four employees and their families to pay all the bills.

audience: applause.

Sylvia Baker: for all of the construction. And hopefully we'll sell our houses during the time when it's being constructed. But I just have a real concern that you are really, air pollution is simply one of the factors that is going to be much worse than you're anticipating. Based upon what limits there are. Not only from the inversion standpoint and the forest fires and the additional construction, I think probably you're underestimating the ambient air quality. And especially when you talk about years, and now I remember Delta Utah before that power plant and um it may be a different technology now than what they have in Delta but it's gotten worse every single year, year after year after year. And they have so many more inversions than they ever had before. And inversion traps cold air in and when we have the coldest air in the nation anyway to extend those periods of time when we are enduring that kind of sub zero cold is not good for plants, animals, livestock, wildlife, people, especially when you consider the pollution. Like my sons calve heifers this time of year, from January to March and if there's an inversion trapping the cold air in they're gonna lose calves, their gonna lose a lot of calves, and the mother cows are on the range having calves their going to lose calves their. They are over in Snake Valley so of course we don't have to worry about them, right? But, um, so that's a comment but it's also a question as to what is it that your saying is going into that ambient air quality figures that you gave us.

Michael Elges: very good question. The analysis the way, obviously I can't answer that whole question,

Sylvia Baker: no, it wasn't a whole question it was a comment.

Michael Elges: point well taken, no, the analysis that has been done certainly does not try to artificially figure out what growth is going to be in the future and factor that in. It's an evaluation of what the status is if you will, representative of right now. Your question is not one that's unusual to me that's one I'm asked of many different counties and schools; I'm sorry, not school boards, but school districts, different communities that they're growing, you know, typical

Nevada you have kind of boom and bust scenarios, we're pretty much in a boom right now in a lot of different aspects, and it is, it's a very critical issue and I think one of the values here is folks recognize that air quality in their community is a resource that they have to manage, and that has a lot to do with what is done at the local level for the different types of growth, you know, some of what you talked about and how its factored in, we certainly encourage that mind set. We do have to fix problems in areas that don't try to account for that kind of growth. That ultimately do turn into a bit of an air quality problem, and that's much more difficult and much more painful to do. Our regulatory authority doesn't let us directly get involved with that but we certainly try to work with communities in developing when they're growing rapidly and at least providing some information and some suggestions and how to expect that and what kind of impact it may have. We have a lot of areas that are looking at in particular booming industrial growth, and to be honest with you they didn't think it was a problem to put a bunch of industrial sources together, kind of out in the middle of nowhere, they thought that was really a good thing to do. And unfortunately once we got involved and they realized that grouping those sources together very closely was a bad thing it's really hard to re gear for how best to utilize, not only the land use issues that they brought along with it but water resources, air quality, so on and so forth. So your point is well taken and I think your well advised that continuing to articulate that, because I think there is a lot of value in understanding how you develop a community for large growth that's going to happen quickly. As far as this program is concerned and what we're responsible for, as that growth occurs, we have to evaluate it along the way to make sure that it's not going to degrade beyond the standards that are set. Obviously what we don't want to do is get part of the way down the road and say no, you can't do it anymore, there's no value

Sylvia Baker: that's why you need to change your baseline.

Michael Elges: well, and again, there are a lot of arguments for how best to do that, I'm certainly not going to try to convince folks what the best way, there's a lot of different rationales for it, but again directly to answer your question the baseline that the analysis that we have done today is based on what's present today and not try to artificially out guess what will be there in the future.

Sylvia Baker: well, but we'll live with whatever it is, if we get this power plant out. The other aspect to what I just talked about also has to do with dust and water, and water is a big issue around here; and we don't want to give it away unnecessarily or use more than we have the capacity to recharge, and it looks to me like your giving us figures here that are beyond our recharge rate. So I can't see how you think that the water is all there and will continue to be there indefinitely and especially during drought years we had six in a row not very long back and you know it just makes a difference. Thank you.

Michael Elges: no, thank you, alright, before I lose my voice, have we, I want to make sure that everybody's provided or at least had the opportunity to ask questions of at least the analysis that we've done in the draft permit, I think were looking to probably try to wrap this up, I certainly don't want to rush anybody out, we'll be here as long as need be but, just again, want to make sure that everybody who wants to speak can get on the record can do so. I'm sorry,

Oskar Atkinson: my name is **Oskar Atkinson** and it will be a comment and a question. That power plant is twenty-two miles north of McGill, I'm living twenty miles north of McGill, so I'm there, I'm likely probably the closest neighbor to the power plant. We are a little in the East of the proposed site in a little higher elevation, so It's most I guess six-hundred feet we are four-hundred feet above cloud level there so for us the smoke stack is two-hundred feet. What do I

have to expect from an impact in the really close area around there, I'm really concerned about our health. I'm concerned about other pollution power plants, that as far as I know, they are lit up bright at night; do I need to close my windows and put blinds up? Thanks.

Michael Elges: again, a very valid question. I can't speak to the lighting issue, and I'm not sure if Eric, you might have some information on that but, in particular the question you have about the impacts that are expected around the project we probably can't show you exactly what they are tonight, they are below the numbers that we've got here, but we will make as part of that technical document there is, it's possible for us to actually show the closest area that's part of our analysis to where your talking about, so we can zero in on that area and actually show you what the numbers look like right there. So before you leave why don't we make sure we get you know, make sure we can contact you because that's a pretty specific question that will take us a little time to zero in on that spot where we can show you what our analysis has shown for that specific area. There was one more question? Okay, I've got it, alright. Anymore?

Charles Benjamin: my name is **Charles Benjamin**. I am the director of the Nevada office of Western Resource Advocates, where I'm also the lead attorney. And um I am here to summarize the comments that we along with Sierra Club, Environmental Defense and some others have submitted to you by federal express it's about seventy pages, and I will not, mercifully, read those into the record tonight, that's worth applause by itself. But I would like to summarize the key points for the record, however, I heard some questions raised by others and some answers that I found, that I would like to address given my experience, and as an attorney and also as a former county commissioner in Kansas for sixteen years; I just moved to Nevada from Kansas, and as I mentioned, I lived in a small rural county for many years, and I was county commissioner there. One of the things that was presented, and I think, unfortunately, in what is supposed to be an air permit discussion was about jobs. So since LS Power brought it up, I would like to make some comments about that. If I could, they brought it up sir, and I'd like to comment about that.

Michael Elges: Well, that's certainly not what we are here to take on.

Charles Benjamin: I understand but you did allow them to comment about the number of jobs and taxes.

Michael Elges: as I started with this presentation we tried to be as flexible as possible, were not here to talk about jobs.

Charles Benjamin: well okay, but I'd like to, if you don't mind. I'll be real brief.

Michael Elges: no, I really don't think it's appropriate.

Charles Benjamin: well I didn't think it was appropriate for you to allow them to talk about jobs. You allowed it; you opened the door to it, sir.

Michael Elges: listen it is our meeting and I'm telling you it's not appropriate for this forum.

Audience: It's a public meeting

Charles Benjamin: Okay, alright, let me just, I won't go into it then, but, I think I would just ask yourself, folks of White Pine County, if this is such a great deal and the power is going to the

Las Vegas Valley, why aren't the jobs there. That's all I'll say about that. Alright, so let's talk about some other things, about permitting for example. I believe the question was asked what happens if there out of compliance? And I think the answer was we can shut them down. I guess I'd ask you have you ever shut down a coal plant in the state of Nevada.

Michael Elges: yes I have.

Charles Benjamin: okay, I have found in my experience, even when a facility is out of compliance with state or federal regulatory laws it is very difficult, I've intervened in cases, with the environmental agency trying to shut down facilities, and I can guarantee you the amount of money these folks are making that there will be a battalion of lawyers they have more money for lawyers that your agency has. So it's very difficult it's just not that easy. Since the issue was brought up about the landfill, I would like to point out since the statement was made by LS Power that, I believe she said, that they will be responsible forever. Well, it's not quite true, because they have bonding and other financial assurances, however they have set up a limited liability corporation. I have set up limited liability corporations and there all based on the Delaware model. It, by definition is to limit liability of those who make the decisions. So this limited liability corporation could disappear over night. And you hope that the bond that's left over will pay for any remedial action of a land fill that may cause pollution for decades to come. You hope so, I don't know how much the bond is in the state of Kansas. I know in other states it's considered inadequate, even by the state environmental agencies. So, I just wanted to point those things out, since I did hear some discussion about that. Now let's talk about the air permit a little bit. First of all I do want to thank the agency for holding this hearing. It was the Sierra Club, Western Resource advocates and environmental defense who requested this public hearing, and I must say I am impressed by the comments I heard, we are always, I mean I'm always empowered by the people in the community when I go to these kinds of public hearings, I'm glad we made the request. So I want to start with just a brief introductory statement. Nevada is happily a state with many energy choices, the state is rich in solar wind and geothermal energy, it is part of a western region with world renowned high technology and computing industries, leading universities, abundant venture capital, and forward thinking entrepreneurs. Nevada is poised to lead the nation in promoting 21st century energy solution. The proposed LS Power White Pine Power Plant is a facility rooted in the past; it is being constructed with the same essential coal firing technology used since World War II. The plant and draft permits fail entirely to regulate carbon dioxide even though the plant could operate for the next forty to sixty years and the magnitude of the threat from global warming is becoming increasingly clear. If each state across the nation allows the coal burning plants currently proposed to be built, if Nevada for example approves the seven power plants currently on the drawing boards, then the ability of the United States and the world to obtain energy from other cleaner sources will be severely compromised. The proposed LS Power White Pine coal plant is a threat to people in the environment. The plant would emit large amounts of pollutants known to harm public health and the environment, including sulfuric acid mist, mercury, nitrogen oxides, sulfur dioxide, particulate matter, volatile organic compounds, and carbon monoxide. The coal burning plants would also as noted, emit large amounts of carbon dioxide the primary green house gas responsible for global warming. Nevada today is at a cross roads, with one path leading to modern energy solutions, economic prosperity and health. The other well trod path continuing to lead to health problems, global warming and all related problems of an economy that relies on fossil fuels to supply energy. The organizations submitting these comments have members in Nevada who will adversely be affected by the LS Power White Pine Power Plant. These members are concerned about the effect of the plant on their health, businesses in the states economy, and environment including its magnificent public lands. As Nevadans they also have

an interest in their state taking the lead in choosing smart energy solutions that will advance the prosperity and health of Nevada communities. Now I'd like to make just a few comments an outline of what the essence of what our submission was. First of all, with regard to global warming, the draft permit does not address carbon dioxide, and other green house gas emissions. The proposed plant will contribute to the climate change crisis. Nevada, other states, the congress and the Supreme Court are taking actions to address the climate crisis. The draft permit must address carbon emissions, as EPA's surrogate, the NDEP is required to directly regulate carbon dioxide. And I'd like to if I could briefly read from this specific code of federal regulations. The clean air act specifically includes carbon dioxide and a list of quote "air pollutants" end quote, section 103.G directs EPA to conduct the research program concerning quote, "improvements in non regulatory strategies and technologies for preventing or reducing multiple air pollutants including carbon dioxide, from stationary sources including fossil fuel power plants" end quote. In 42 USC Section 7 – 403G1 Section 103G1 of the clean air act. The clean air act requires regulations of air pollutants that quote "may reasonably be anticipated to endanger human health or welfare you can see 42 US C Section 74-11 and sections 111 of the clean air act, which establishes new source performance standards. The statutory definition of quote, unquote, "welfare" specifically includes affects on climate and weather. You can see 42 USC section 7602 and section 302 H of the clean air act. The plant's carbons emissions must be considered in the best available control technology collateral impacts analysis. There are more efficient boiler technologies that could emit much less carbon monoxide and carbon dioxide. Cleaner fuels would reduce carbon monoxide and carbon dioxide emissions, the NDEP must consult with the fish and wildlife service regarding the effect of carbon emissions on endangered species. Global warming impacts must be considered in the analysis of alternatives. With regard to mercury, the mercury emissions limit is too high for the planned mercury control technology and is based on materially incomplete information. With regard to best available control technologies there are several flaws that we've identified in the analysis, and we do believe that the determination is, that it does, that this plant complies is legally flawed and incomplete. The best available control technology analysis fails to consider available, less polluting technologies, the best available control technology determination fails to properly evaluate integrated gasification combine cycle, otherwise known as IGCC as an available method. Federal law requires that thorough evaluation of IGCC as part of the BACT analysis. Considering IGCC in a BACT analysis is not quote "redefining the source" unquote. Recent state actions require consideration of IGCC as BACT. The draft permit used flawed analysis in its commercial evaluation of IGCC. The BACT limits should be output based; NDEP cannot exempt start up and shut down emissions from BACT or modeling emissions. The BACT analyses failed to properly consider and document the performance of individual and combined technologies. A BACT limit should be set for opacity, BACT limits themselves do not reflect the best available control technology, excuse me, the proposed emission limits, do not reflect the best available control technology. The NOx emission limit does not reflect the best available control technology. The sulfur dioxide emission limit does not reflect the best available control technology. The particulate matter limit does not reflect the best available control technology, and best available control technology limits are required for regulated pollutants. NDEP is required to seek out the maximum degree of reduction for particulate matter. The draft permit BACT analysis fails to properly address PM2.5. The H2S04 mist and HS BACT limits do not reflect the best available control technology. The carbon monoxide CO limit does not reflect the best available control technology. The volatile organic compounds limit does not reflect the best available control technology. The lead limit does not reflect the best available control technology. The fluorides limit does not reflect the best available control technology. As to enforcement, the draft permit fails to ensure compliance and enforceability. Monitoring frequency is not adequate to ensure compliance. Compliance with particulate matter limits should be ensured with a quote

“continuous emission monitoring system” end quote, CEMS. The draft permit contains no definition of start up, shut down or malfunctions. The permit applicant has failed to demonstrate compliance with clean air section 110 subpart J performance standards. Air quality impacts, the permit applicant’s demonstration of compliance with air quality standards is materially incomplete. The permit application failed to provide adequate data to allow review by the state and the public. The permit applicant has failed to demonstrate that the White Pine Power plant would not contribute to air pollution in violation of national air quality standards, or local air quality PSD increments. The permit applicant has failed to fully evaluate impacts of air quality related values at Great Basin National Park and other wilderness areas and wildlife refugees in the region. The permit applicant failed to adequately demonstrate that the LS Power White Pine Facility will not contribute to violations of the PSD increments in any class 1 area. The permit applicant failed to adequately demonstrate that the LS White Pine Facility will not adversely impact visibility or other air quality related values in any class 1 area. The permit applicant failed to provide an adequate or complete analysis of the growth associated with the LS Power White Pine Facility. But I’d also like to bring up some matters that came up in one of our expert’s analysis. The permit applicant failed to demonstrate that it’s start up and shut down operations will not contribute to air pollution in violation of the national ambient air quality standards or local air quality increments. The permit applicant failed to demonstrate that it’s start up and shut down operations will not adversely impact air quality related values in class 1 areas. The permit applicant failed to model the plant’s worst case allowable emissions. The permit applicant failed to include all contributing source emissions in its national air ambient quality standards and class II increment analysis. The draft permit is deficient in analyzing growth and growth related impacts due to the proposed plan. The permit applicant failed to conduct cumulative class 1 increment analyses for particulate matter nitrous oxide and sulfur dioxide. The permit applicant failed to model maximum allowable total PM10 emissions in its class 1 increment and visibility assessments. The permit applicant failed to demonstrate that it’s start up and shut down operations will not contribute to class 1 increment violations. The permit applicant failed to model all increment consuming emissions, the permit, draft permits modeling of air quality related values is therefore flawed. As far as soils and vegetation, the draft permit fails to evaluate the proposed power plant’s impacts on soils and vegetation. The draft permit fails to evaluate collateral environmental impacts to soils and vegetation as part of its BACT analysis. The draft permit fails to adequately analyze impairment to soils and vegetation from the plant and related growth. The inadequate soil and vegetation analysis precluded public review. As far as public participation, NDEP failed to provide public notice of increment consumption, the draft permit’s quote, post permit conditions preclude public review. The final permit should require public notice and comment prior to adjustments in fuel type. The environmental impact analysis is inadequate NDEP should consider alternatives to the coal burning plants. I want to thank you for your time and consideration to these comments, the comments we submitted in more, in greater form than our comments. Thank you.

audience: applause.

Michael Elges: Thank you. Before I lose my voice, is there anybody else that would like to provide comments, I think I’d like to try to wrap this up if we can. Yes sir.

Rod McKenzie: my name is **Rod McKenzie**, and I want to stand up and say I don’t think it’s all doom and gloom. That’s mostly what we heard tonight, I appreciate the state, I think, that uh, I don’t live in Steptoe valley, but I live in White Pine County, I personally feel that to do nothing sometimes is the best option, but in this case I think that at least a fifteen megawatt operation can be a, managed properly, and I’ve got confidence in the state that they will oversee it and see that

it is done properly. A couple of comments on issues that's been raised, it depends on who's magazines and who's science you listen to, ah, there now a, I'm sure we'll see it in the near future, DDT will be back in the market, PCB's will be back, available for use, there are a lot of things that science is not in on, on it, mercury is something and I think the state's airing on the side of caution there. CO2 the science is not in on that, in my opinion, on rather that's contributing to global warming, I don't think we can argue that the temperature is going up, but man made CO2 probably contributing a little or nothing to that. That's all I've got to say, thank you.

Michael Elges: thank you very much, one more.

Alan de Queiroz: Alan de Queiroz from Ely. I just want to make a quick comment sort of a little bit in response to the last comment. Based on what I've heard tonight, I don't trust the state, I don't trust power companies, and there's no such thing as clean coal. We're hearing this all the time, environmentally responsible coal, clean coal, there's no such thing.

audience: applause.

Michael Elges: alright folks, I very much appreciate everybody participating tonight. Just in the way of how we work from here we take all of your comments, obviously we got a lot of them tonight; it's going to take us a little bit to go through all of them. We will be putting, as part of our record we put together a compilation of all the comments and certainly try to address every one of those as possible. So I'd ask, if you haven't already given us an address or email or someway of being able contact you and you want to know how we pulled the rest of this package together and how the rest of the evaluation goes, please make sure you get that information either next to your name on the sign in sheet or to us before you leave tonight. Also I also wanted to leave you with a couple, at least one email address that will have all this information up and if you are interested in having it mailed directly to you, please let us know so we can do that so we can make copies of all the technical information as well as our presentation or anything else that's related to this project, and have that sent directly to you, the easiest way for us is to put it up our website so we recognize that some folks don't have that in hand we'd be able to do that as well. Website.

Greg Remer: The bureau of air pollution controls website is ndep.nv.gov/bapc, that's the main web page you should be able to get to it from there.

Matthew DeBurle: let me make a note that at this point we do not have this information up on line, but, by Monday next week we will.

audience: will that include the power point presentation?

Michael Elges: yes, we will put that up as well.

audience: could you say that web address again?

Michael Elges: it's ndep for Nevada division of environmental protection. Maybe we can… (web address put on powerpoint screen) Again I want to thank everybody for coming tonight and know it's been a bit long, again, I appreciate your input. Thank you very much.

audience: thank you for being here. Applause.